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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,300	07/16/2003	Dou Yuanzhu	9281-4576	2226
7590 09/22/2004				
Brinks Hofer Gilson & Lione P.O. Box 10395 Chicago, IL 60610			EXAMINER A, MINH D	
			ART UNIT 2821	PAPER NUMBER

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/621,300

Applicant(s)

YUANZHU, DOU

Examiner

Minh D A

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/16/03, 1/15/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being unpatentable by Suguro et al (US 6,150,984).

Regarding claim 1, Suguro discloses a shared antenna and portable radio device comprising circularly-polarized antenna (MSA1); and linearly-polarized antenna (2) wherein both antenna (1 and 2) are connected to a diversity receiving circuit and one of the antennas is rotatably supported (rotary shaft A or element 33). See figures 1-3, col.3, lines 5-61 to col.7, lines 1-10.

Regarding claims 2-3, Suguro discloses the circularly-polarized antenna is an antenna that intensively radiates circularly polarized radio waves in a specific direction and the linearly-polarized antenna inherently is an omni-directional antenna with respect to a predetermined plane (because the linear antenna is helical antenna or monopole antenna as shown on figure 2) and the rotatably-supported antenna (A) is the circularly-polarized antenna. See figures 1-3.

Regarding claim 4, Suguro discloses wherein polarization diversity is achieved by arranging the circularly-polarized and the linearly polarized antenna in different positions. See figures 3-8.

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Regarding claim 5, Suguro discloses wherein a shape of the patch electrode the patch antenna (8) is a circle or any other appropriate geometric shape. See figures 3-8.

Regarding claim 6, Suguro discloses an antenna comprising a high gain antenna (2) and a linearly polarized antenna (8 or 33), both antennas (2 and (8 or 33) antenna are connected to a diversity antenna supported (33. See figures 3-8, col.3, lines 5-67 to col.7, lines 1-10.

Regarding claim 7, Suguro discloses wherein the rotatably-supported antenna(33) is the high-gain antenna. See figures 3-8.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Louzir et al(US 6,618,012) and Desclos et al. (US 6,160,512) are cited to show a multi-mode antenna.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Minh A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 –2:30 PM).

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and (703) 872-9319 for final communications.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (571) 272-1553.

Examiner

Minh A

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9/14/04

A handwritten signature in black ink, appearing to read 'Wilson Lee', with a stylized, cursive script.

**WILSON LEE**  
**PRIMARY EXAMINER**